REMARKS

Please reconsider the application in view of the above amendments and the following remarks.

Rejection(s) under 35 U.S.C §112

Claims 8-11, 14, 15, 39, 40, 51 and 52 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim th subject matter which Applicants regard as the invention.

Regarding claim 8, the Applicant has replaced the word "accessed" with "accessible". A further amendment clarifies that "the communication network enables each meter within the plurality of meters to transmit data to said central computer system". Claim 8 has also been amended so that "information" does not appear as a structural component.

Regarding claims 8 and 14, the phrase referencing "each data record" has been divided into two phrases in order to clarify that each data record in said plurality of data records includes a meter identifier and a public cryptographic key of said meter, and that the meter identifier identifies a meter within said plurality of meters associated with said data record. Furthermore, the phrase "as said message" has been changed to read "in said message."

Regarding claims 39 and 51, the claims have been amended to clarify what is being determined. Specifically, claims 39 and 51 now include "determining in said central computer system whether said alphanumeric value additionally transmitted in an unencrypted form in step d) is the *next value* following an alphanumeric value *most recently* transmitted by said meter in said predetermined sequence of alphanumeric values." (*emphasis added*).

Rejection(s) under 35 U.S.C § 103

Claims 8-11, 14, 15, 39, 40, 51 and 52 as understood by the Examiner, stand rejected under 35 U.S.C. §103(a) as being unpatentable over Villicana et al. (U.S. 6,819,098 B2) ("Villicana"), in view of Wheeler et al. (U.S. 2002/0026575 A1) ("Wheeler").

The Applicant reasserts that Villicana and Wheeler do not teach or suggest each and every limitation of the present claims. The examiner's attention is drawn to the amendments made to independent claims 8, 14, 39 and 51. These amendments clarify that the claims systems (independent claims 8 and 14), method (independent claim 39) and computer readable medium (independent claim 51) involve determining whether the alphanumeric value received in the message from the meter is the *next value following, within said ordered sequence of values, a value most recently transmitted* as said alphanumeric value from said meter. (See claim 8, for example). Specification support for the term "next value" is found in original claims 8 and 22. Specification the term "most recent previous transmission" is found at page 21, line 10.

Determining that the alphanumeric value received in the message is the next value in a sequence following a value most recently transmitted allows authentication of the message as having originated from a particular, valid meter. False or fraudulent transmissions are detected and are not accepted, in accordance with the following description from the specification.

> In accordance with a second embodiment of the invention, the communication network provides for one-way communications from each of the meters to the central computer system. A call to report utility usage is initiated by the meter, which transmits a alphanumeric value from a predetermined alphanumeric value sequence in both an unencrypted form and in a form as a part of the encrypted message. If the central computer system then determines that the version of the alphanumeric value from the encrypted message, as decrypted using the public key of the meter, matches the unencrypted version of the alphanumeric value, *a further determination is made of whether the alphanumeric value follows a alphanumeric value previously received from the same meter in the predetermined sequence.* If it does, the new alphanumeric value is stored for subsequent use in verifying another transmission, along with the utility usage data reported by the meter. This method ensures that each alphanumeric value encrypted and transmitted by a particular meter is a new alphanumeric value, that has not been encrypted and transmitted before, *so that it is impossible to form a false transmission* that will be accepted by the central system *by using a previously recorded version of a alphanumeric value from the meter in its encrypted and unencrypted forms.*
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>   (Specification, page 7, line 25 to page 8, line 12; *emphasis added*; see also specification, page 21, lines 9-21; page 24, lines 6-15; page 25, line 26 to page 26, line 6).

The examiner asserts that Wheeler discloses the generation and transmission of a date or time stamp in both encrypted and unencrypted form, and that all values of date or time stamps represent a "next value" from the sequential values of time (Office Action dated July 9, 2009; pages 7 and 11-12). The Applicant does not dispute that time proceeds sequentially forward, but disagrees with the conclusion that Wheeler discloses the limitations of the present claims.

Wheeler's date and time stamp is used as a session key to assure that "no two digital signatures originated by the device 250 would ever be identical." (Wheeler, paragraph [0115]). Accordingly, Wheeler would transmit the *current date and time* at the moment of the transmission. However, Wheeler's transmission of *current date and time* does not teach the transmission of the *next value* of date and time in an ordered sequence. Furthermore, while the current date and time may be never be repeated and happen to be sequential, the current date and time are also well known to any potentially fraudulent device. Accordingly, any fraudulent device could generate and use the current date and time at the moment of transmission. This means that date and time are variables that do not serve to authenticate a valid device or communication from a fraudulent device or communication.

The Applicant asserts that the claims must be read as a whole. For example, claim 8 includes the limitation of "said microprocessor in each meter in said plurality of meters is additionally programmed to generate an ordered sequence of values for use as each said alphanumeric value, and to transmit, on a periodic basis, to said central computer system, a next value from said ordered sequence of alphanumeric values". By determining whether the alphanumeric value received in the message from the meter is the *next value following, within said ordered sequence of values, a value most recently transmitted* as said alphanumeric value from said meter, the central computer of the system in claim 8 is able to authenticate the meter. Each subsequent transmission from the meter will include the next value in the ordered sequence. Because the processor in the central computer is programmed to determine if the alphanumeric value received in the message in the *next value* following the *most recently* transmitted value in the ordered sequence, it can determine that the message came from a particular, valid meter that is able to generate the next value in the sequence. According to the claimed systems, method and computer program product, a fraudulent device having intercepted the previously transmitted alphanumeric value or including a clock that provides the current date and time would still be unable to authenticate itself.

Although independent claims 8, 14, 39 and 51 are not identical, each of the claimed systems (independent claims 8 and 14), method (independent claim 39) and computer readable medium (independent claim 51) involve determining whether the alphanumeric value received in the message from the meter is the *next value following, within said ordered sequence of values, a value most recently transmitted* as said alphanumeric value from said meter. (See claim 8, for example). Reconsideration and withdrawal of the rejection is respectfully requested.

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned. In the event there are additional charges in connection with the filing of this Response, the Commissioner is hereby authorized to charge the Deposit Account No. 500563 of the firm of the below-signed attorney in the amount of any necessary fee.

Respectfully submitted,

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